

AMENDMENTS TO THE CLAIMS

The following is a complete, marked-up listing of revised claims with a status identifier in parenthesis, underlined text indicating insertions, and strike through and/or double-bracketed text indicating deletions.

LISTING OF CLAIMS

1. (Currently Amended) A method for recording video data and additional data on a recording medium, comprising:

receiving the video data and the additional data, the additional data including graphic data and subtitle data, the graphic data including first type graphic data for providing interactive displays and second type graphic data for providing images; and

recording the video data and the additional data on the recording medium, the recording including dividing and organizing the additional data such that the additional data is included in a plurality of distinct regions,

wherein the video data is configured to be presented on a main plane, and the additional data is configured to be presented on a plurality of sub-planes based on a type of the additional data so that at least one of the plurality of distinct regions is configured to be presented on ~~each~~ a corresponding one of the sub-planes,

wherein the first type graphic data and the second type graphic data are configured to be decoded by a corresponding decoder separately and presented on different sub-planes of the plurality of sub-planes, and

wherein each distinct region of each of the sub-planes includes an object so that the additional data of the each region of the distinct regions of each of the sub-planes are configured to be overlaid on the video data of the main plane.

2. (Previously Presented) The method set forth in claim 1, wherein the graphic data and subtitle data are organized into distinct sub-planes.

3. (Previously Presented) The method set forth in claim 1, wherein the plurality of sub-planes include a graphic sub-plane and a subtitle sub-plane.

4. (Previously Presented) The method set forth in claim 1, wherein each of the plurality of sub-planes includes at most two of the distinct regions.

5. (Previously Presented) The method set forth in claim 1, wherein the object is at least one of text, an icon, an image, and a background box.

6. (Currently Amended) A method for recording video data and additional data on a recording medium, comprising:

receiving the video data and the additional data, the additional data including graphic data and subtitle data, and the graphic data including first type graphic data for providing interactive displays and second type graphic data for providing images;

recording the video data as a main stream; and

recording the additional data as a plurality of individual, parallel additional streams on the recording medium such that two types of the additional data included in the same single region are respectively recorded as two separate parallel additional streams, the first type graphic data and the second type graphic data are configured to be decoded by a corresponding decoder separately and presented on different sub-planes, and the additional data included in different regions configured to be presented on a same plane are recorded in the same stream in serial.

7. (Previously Presented) The method set forth in claim 6, wherein the number of the plurality of additional streams is the same as the number of graphic decoders contained in a reproducing apparatus.

8. (Previously Presented) The method set forth in claim 6, wherein the parts of the additional data that are simultaneously decoded are placed in distinct additional streams.

9. (Currently Amended) A computer readable medium encoded with a data structure, comprising:

video data and additional data, the additional data including graphic data and subtitle data, and the graphic data including first type graphic data for providing interactive displays and second type graphic data for providing images,

wherein the additional data is divided and organized such that the additional data is included in a plurality of distinct regions,

wherein the additional data is configured to be presented on a plurality of sub-planes based on a type of the additional data so that at least one of the plurality of distinct regions is configured to be presented on ~~each~~ a corresponding one of the sub-planes,

wherein the first type graphic data and the second type graphic data are configured to be decoded by a corresponding decoder separately and presented on different sub-planes of the plurality of sub-planes, and

wherein each of the distinct regions of each of the sub-planes is configured to include an object so that the additional data of each of the distinct regions of each of the sub-planes are configured to be overlaid on the video data of the main plane, and

the computer readable medium is configured to have an information area storing information files for managing reproduction of the video data and the additional data.

10. (Previously Presented) The computer readable medium set forth in claim 9, wherein the graphic data and subtitle data are organized into distinct regions.

11. – 12. (Cancelled)

13. (Currently Amended) An apparatus for recording video data and additional data on a recording medium, comprising:

a recording unit configured to record data on the recording medium; and

an controller operably coupled to the recording unit to record the video data and the additional data, the additional data including graphic data and subtitle data such that the additional data is included in a plurality of distinct regions, and the graphic data including first type graphic data for providing interactive displays and second type graphic data for providing images,

wherein the additional data is configured to be presented on a plurality of sub-planes based on a type of the additional data so that at least one of the plurality of distinct regions is configured to be presented on ~~each~~ a corresponding one of the sub-planes,

wherein the first type graphic data and the second type graphic data are configured to be decoded by a corresponding decoder separately and presented on different sub-planes of the plurality of sub-planes; and

wherein the each of the regions of each of the sub-planes includes an object so that the additional data of each of the distinct regions of the each of the sub-planes are configured to be overlaid on the video data of a main plane.

14. (Previously Presented) The apparatus set forth in claim 13, wherein the controller is configured to place the graphic data and subtitle data in distinct sub-planes.

15. – 17. (Cancelled)

18. (Currently Amended) A method for reproducing a recording medium, comprising:

decoding video data and additional data, the additional data including graphic data and subtitle data recorded on the recording medium, and the graphic data including first type graphic data for providing interactive displays and second type graphic data for providing images, the additional data divided and organized such that the additional data is included in a plurality of distinct regions, the additional data is presented on a plurality of sub-planes based on type of the additional data so that at least one of the plurality of distinct regions is presented on ~~each~~ corresponding one of the sub-planes, the first type graphic data and the second type graphic data are decoded by a corresponding decoder separately and presented on different sub-planes of the plurality of sub-~~planes~~ planes, and the video data is presented on a main plane; and

constructing a video image by mixing the main plane with the plurality of sub-planes and outputting the constructed video image so that the additional data in each of the distinct regions of each of the sub-planes is configured to be overlaid on the video data of the main plane.

19. (Previously Presented) The method set forth in claim 18, wherein the plurality of sub-planes include a subtitle plane and a graphic plane.

20. (Original) The method set forth in claim 19, wherein the subtitle plane includes decoded graphic data as well as decoded subtitle data.

21. (Currently Amended) An apparatus for reproducing a recording medium, comprising:

a reading unit configured to read data recorded on the recording medium; and
a decoder configured to decode video data and additional data, the additional data including graphic data and subtitle data recorded on the recording medium, and the graphic data including first type graphic data for providing interactive displays and second type graphic data for providing images such that the video data is presented on a main plane and the additional data is included in a plurality of distinct regions, the additional data is presented on a plurality of sub-planes based on a type of the additional data so that at least one of the plurality of distinct regions is presented on each a corresponding one of the sub-planes, and the first type graphic data and the second type graphic data are decoded by a corresponding decoder separately and presented on different sub-planes of the plurality of sub-planes; and

a constructor configured to construct a video image by mixing the main plane with the plurality of sub-planes and outputting the constructed video image so that the additional data in each of the distinct regions of each of the sub-planes is configured to be overlaid on the video data of the main plane.

22. (Previously Presented) The apparatus set forth in claim 21, wherein the decoder is configured to organizes the additional data into a subtitle plane and a graphic plane.

23. (Previously Presented) The apparatus set forth in claim 22, wherein the decoder is configured to organizes the subtitle plane such that the subtitle plane includes decoded graphic data as well as decoded subtitle data.

24. (Previously Presented) The method set forth in claim 1, wherein the graphic data and subtitle data are decoded by different decoders.

25. (Previously Presented) The method set forth in claim 9, wherein the graphic data and subtitle data are decoded by different decoders.